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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,261	09/22/2003	Tatsunori Nagura	US-P1732F	7120

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EXAMINER	
BEHNCKE, CHRISTINE M	
ART UNIT	**PAPER NUMBER**
3661	

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/665,261	NAGURA ET AL.	
	Examiner	Art Unit	
	Christine M. Behncke	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☒ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *22 September 2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the Application filed 22 September 2003, in which claims 1-6 were presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Iida et al., US Patent No. 6,497,301.

3. (**Claim 1**) Iida et al. discloses a driving force distribution control device for a vehicle for controlling engaging force of a coupling mechanism so as to change transmission torque, thereby distributing driving force (Abstract), said device comprising: means for continuously changing a torque limiter which limits engaging force of said coupling mechanism (electronic control clutch, Column 2, lines 28-39), from a limiter value in an ordinary control state according to a driving state (when there is no tire diameter difference detected, Column 5, lines 38-42), to a limiter value in a specific control state for protecting a driving force transmission system (when there is a detection of a tire diameter difference, Column 2, lines 36-39); and means for

controlling engaging force of said coupling mechanism in said specific control state so as to keep below the limiter value in said specific control state (Column 2, lines 28-39 and figure 8).

4. (**Claim 2**) Iida et al. further discloses wherein said specific control state is a control state in which nonstandard-diameter tires are mounted (Abstract and figures 4 and 8).

5. (**Claim 4**) Iida et al. further discloses wherein said specific control state is a control state in which abnormal differential rotation between front and rear wheels, exceeding a preset value for engaging force of said coupling mechanism, is detected (Column 4, lines 29-39 and Column 7, lines 57-67).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Katayama et al., US Patent Application No. 2003/0036837.

7. (**Claim 1**) Katayama et al. discloses a driving force distribution control device for a vehicle for controlling engaging force of a coupling mechanism so as to change

transmission torque (Abstract), thereby distributing driving force, said device comprising: means for continuously changing a torque limiter which limits engaging force of said coupling mechanism (TCS controller, [0011]), from a limiter value in an ordinary control state according to a driving state (two-wheel drive state, [0023]), to a limiter value in a specific control state for protecting a driving force transmission system (velocity difference between the front and rear wheels [0032]); and means for controlling engaging force of said coupling mechanism in said specific control state so as to keep below the limiter value in said specific control state ([0032] and [0079]).

8. (**Claim 3**) Katayama et al. further discloses wherein said specific control state is a control state in which abnormal oil temperature rise of said driving force transmission system is detected ([0090] and [0096]).

Claim Rejections - 35 USC § 102

Claims 1, 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Takasaki et al., US Patent No. 5,631,829.

9. (**Claim 1**) Takasaki et al. discloses a driving force distribution control device for a vehicle for controlling engaging force of a coupling mechanism so as to change transmission torque (Column 5, lines 37-42, Column 8, line 47-Column 9, line 5), thereby distributing driving force, said device comprising: means for continuously changing a torque limiter which limits engaging force of said coupling mechanism (variable torque transfer, Column 6, lines 13-19), from a limiter value in an ordinary control state according to a driving state (when there is no deviation in rotation condition

between front and rear wheels), to a limiter value in a specific control state for protecting a driving force transmission system (a rapid increase or decrease in the wheel speed difference between front and rear wheels, Column 4, lines 35-42); and means for controlling engaging force of said coupling mechanism in said specific control state so as to keep below the limiter value in said specific control state (Column 5, lines 37-65).

10. (**Claim 5**) Takasaki et al. further discloses wherein amount of change of said torque limiter rate per time increment at transition from said ordinary control state to said specific control state (Column 3, lines 12-19), and amount-of-change of said torque limiter rate per time increment at recovery from said specific control state to said ordinary control state (Column 4, line 62-Column 5, line 12), are set to mutually different values according to said specific control state (Column 5, lines 56-65).

11. (**Claim 6**) Takasaki et al. further discloses wherein amount-of-change of said torque limiter rate per time increment at transition from said ordinary control state to said specific control state, and amount-of-change of said torque limiter rate per time increment at recovery from said specific control state to said ordinary control state, are set to approximately equal values according to said specific control state (Column 3, lines 19-32).

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine M. Behncke whose telephone number is (571)

272-8103. The examiner can normally be reached on Monday - Friday 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

09-17-2005

THOMAS G. BLACK
SUPERVISORY PATENT EXAMINER
GROUP 3600